HVC-P V1.2 Outline

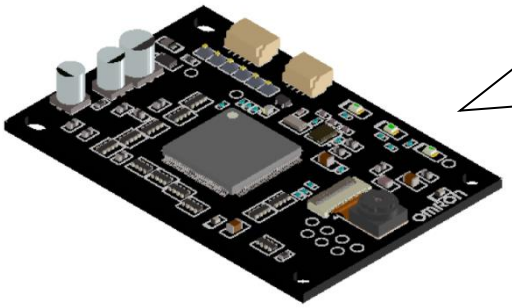
(HVC: Human Vision Components)

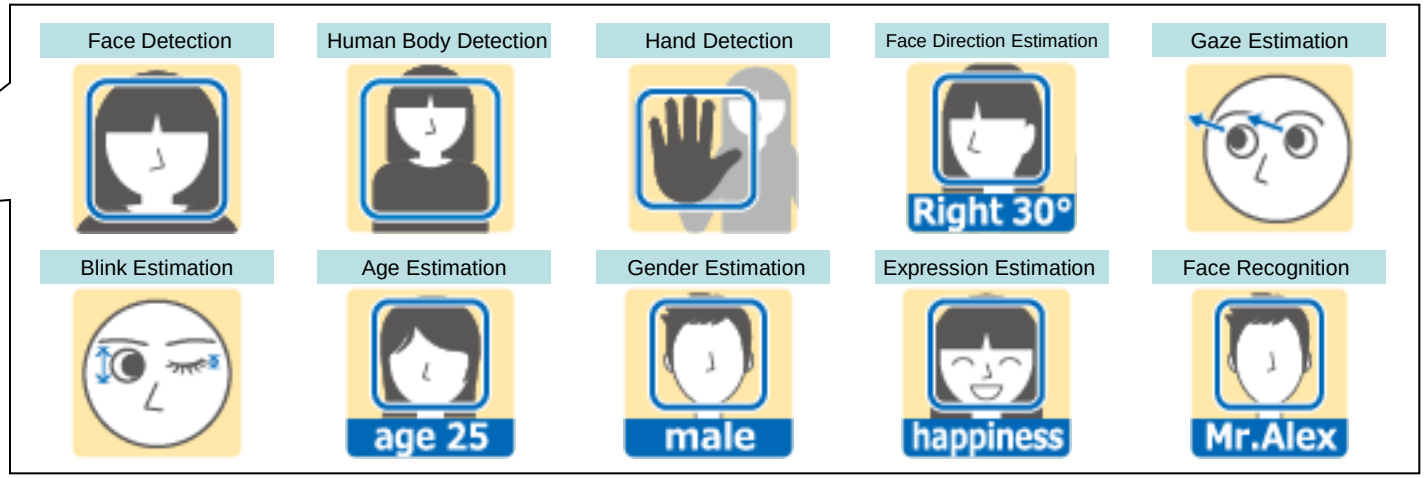
OMRON corporation
Electronic and Mechanical Components Company
Rev. B

Functions

HVC-P is a camera module that has 10 image sensing functions and external interface.

Powered by OKAO





After detection, the following results can be transmitted to the customer's device.

Function	
Face Detection, Human Body Detection, Hand Detection	* Number of detected objects * Center Position (X & Y coordinates) * Size (in pixels) * Degree of confidence
Face Direction Estimation	* Yaw angle * Pitch angle * Roll angle * Degree of confidence
Gaze Estimation	* Yaw angle * Pitch angle
Blink Estimation	* Blink degree (Left eye, Right eye)
Age Estimation	* Age * Degree of confidence
Gender Estimation	* Gender * Degree of confidence
Expression Estimation	* Score for 5 Expressions ("Neutral", "Happiness", "Surprise", "Anger", "Sadness") * Expression degree (+ or -)
Face Recognition	* Individual Identification Result * Score
Output Image	* No image * 160 x 120 pixels * 320 x 240 pixels (choose one) / Format: 8bit Gray

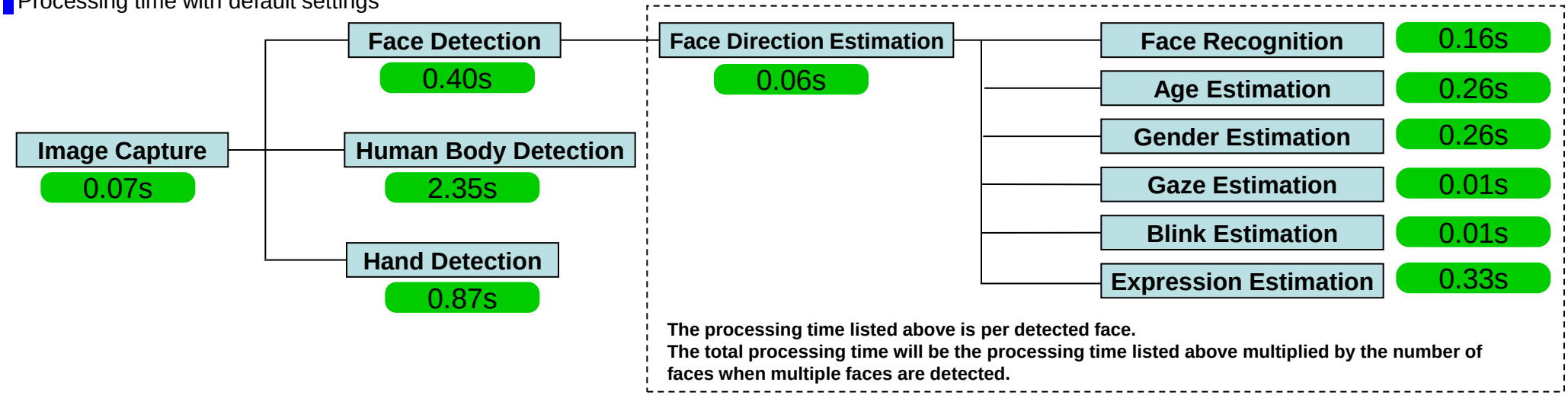
Specifications

Item	Function									
	Face Detection	**Face Recognition**	**Gender Estimation**	**Age Estimation**	**Expression Estimation**	**Face Direction Estimation**	**Gaze Estimation**	**Blink Estimation**	**Hand Detection**	**Human Body Detection**
Horizontal / Vertical Detection Area (Angle of view)	Around 50/40 deg									
Detection Distance (Reference)	1.3m								1.5m	2.8m
Average Response Time (Reference)	Please refer to the System Diagram on the following page.									
Power Supply Voltage	5V									
Consumption Current	Less than 0.25A									
Operation Temperature	0°C - 50°C									
Communication System	UART 3.3V									

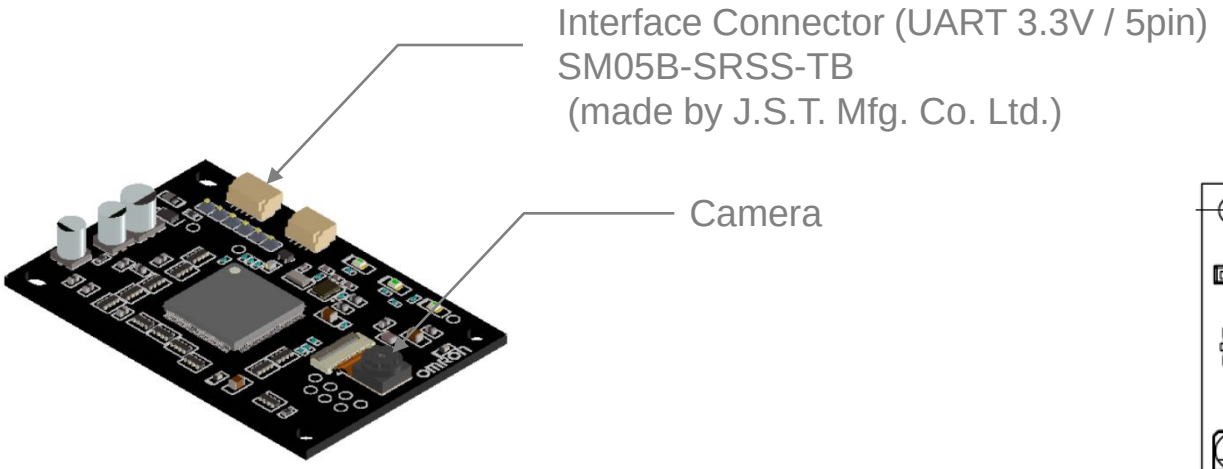
Each function can detect up to 35 objects.

System Diagram

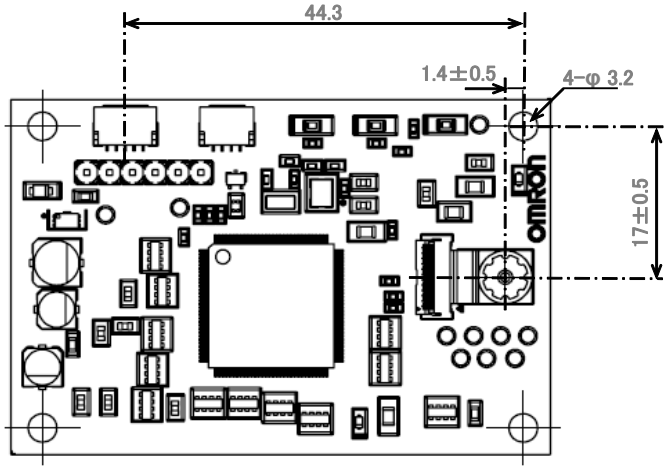
Processing time with default settings



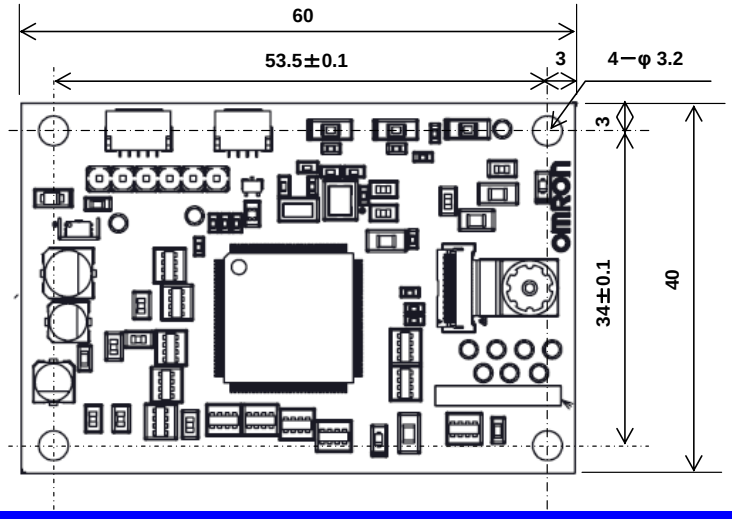
External Dimension



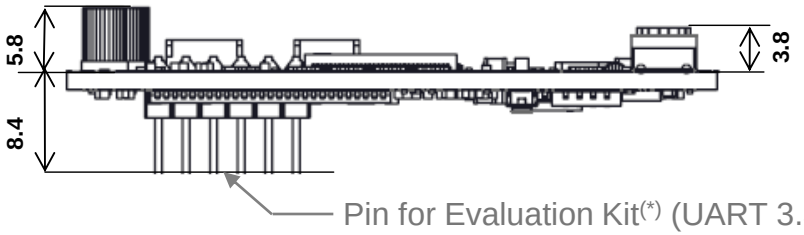
Camera Layout



Front



Side



Pin for Evaluation Kit(*) (UART 3.3V / 6pin)

(*) A test kit is provided for evaluation on PC.